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July 13, 1995

VIA MESSENGER
Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Re: Ex Parte Presentation
CC Docket 94-102

Dear Mr. Caton:

On behalf of KSI Inc. ("KSI") and pursuant to Section 1.1206(a) of the Commission's Rules, this will constitute notice that on July 12, 1995, Charles J. Hinkle, Jr. and John Maloney of KSI and Robert B. Kelly and Douglas L. Povich of Kelly & Povich, P.C., counsel to KSI, met with Richard B. Engelman of the Office of Engineering and Technology regarding the FCC's Notice of Proposed Rule Making in the above-referenced Docket. The parties discussed the matters raised in KSI's Comments and Reply Comments in the subject proceeding. In addition, copies of the attached material were distributed and discussed at the meeting.

Two copies of this notice are submitted herewith pursuant to Section 1.1206(a)(1) of the Rules.

Should there be any questions on this matter, kindly communicate with this office.

Sincerely,

Robert B. Kelly

cc: Richard B. Engelman

No. of Copies rec'd 0+2
List A B C D E

INTELLIGENT TRANSPORTATION SOCIETY OF AMERICA

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International ITS Information Clearinghouse
Fact Sheet #5
Transit Automated Vehicle Locator Systems in the U.S. and Canada

Twenty-five (25) transit properties in fifteen (15) states and three Canadian territories currently operate automated vehicle location systems. These systems monitor and control approximately 13,460 vehicles. In addition, another nineteen (19) procurements (new or enhancements to existing) will be in place in 1995 adding 9,170 vehicles and five states to the count. Of the entities listed, twenty (20) properties have chosen non-GPS-based systems while twenty-three (23) GPS systems are deployed or planned. *Systems which are currently operational are italicized.*

State: Arizona
1. Tucson-Sun Tran; GPS technology for 200 vehicles to be procured in 1995

State: California
1. *San Francisco-MUNI; signpost technology for 850 vehicles operational in 1985*
2. *San Mateo-samTrans; signpost technology for 320 vehicles operational in 1994*
3. Fresno-FAX; GPS technology for 110 vehicles to be procured in 1995
4. Oakland-AC Transit; GPS technology for 680 vehicles to be procured in 1995
5. San Francisco-MUNI; GPS technology for 850 vehicles to be procured in 1995
6. Stockton; GPS technology for 90 vehicles to be procured in 1995

State: Colorado
1. *Denver-RTD; GPS technology for 1,200 vehicles operational in 1994*

State: Florida
1. *Miami-MDTA; GPS technology for 600 vehicles operational in 1995*
2. *Palm Beach-CoTran; signpost technology for 100 vehicles*
3. *Tampa-Hartline; signpost technology for 167 vehicles operational in 1994*
4. Broward Co. Mass Transit; GPS technology for 200 vehicles to be procured in 1995

State: Illinois
1. *Champaign/Urbana-MTD; Loran C technology for 50 vehicles*
2. Chicago-CTA; GPS technology for 2,080 vehicles to be procured in 1995
3. Suburban Chicago-PACE; GPS technology for 1,000 vehicles to be procured in 1995

State: Kentucky

1. Louisville-TARC; signpost technology for 300 vehicles operational in 1994

State: Maryland

1. Baltimore-MTA; Loran C technology for 50 vehicles operational in 1991

2. Baltimore-MTA; GPS technology for 850 vehicles to be procured in 1995

State: Michigan

1. Ann Arbor-AATA; GPS technology for 70 vehicles to be procured in 1995
2. Detroit-DDOT; GPS technology for 500 vehicles to be procured in 1995

State: Missouri

1. Kansas City-KCATA; signpost technology for 224 vehicles operational in 1991

State: Minnesota

1. Minneapolis-MTC; GPS technology for 80 vehicles operational in 1994

State: Nevada

1. Reno-RTC Citifare; GPS technology for 90 vehicles to be procured in 1995

State: New Mexico

1. Albuquerque-Sun Tran; GPS technology for 30 paratransit vehicles to be procured in 1995

State: New Jersey

1. Newark-NJTA; signpost technology for 2,800 vehicles operational in 1995

State: New York

1. Westchester County Transit; signpost technology for 100 vehicles

2. Buffalo-NFTA; GPS technology for 350 vehicles to be procured in 1995
3. New York City Transit Authority; GPS technology for 230 vehicles to be procured in 1995 (ultimately 4,000 vehicles)
4. Syracuse-RTA Centro; GPS technology for 190 vehicles to be procured in 1995

State: Ohio

1. Cincinnati-SORTA; GPS technology for 380 vehicles to be procured in 1995
2. Lake City; GPS technology for 60 vehicles to be procured in 1995

State: Pennsylvania

1. Beaver County Transit Authority; Loran C technology for 36 vehicles operational in 1991

State: Texas

1. Dallas-DART; GPS technology for 1,280 vehicles operational in 1994

2. San Antonio-VIA; signpost technology for 550 vehicles operational in 1987

3. Houston-METRO; terrestrial triangulation technology for 140 paratransit vehicles operational in 1993

4. Houston-METRO; technology for 1,200 vehicles to be procured in 1995

State: Virginia

1. Norfolk-TRT; signpost technology for 180 vehicles

State: Washington

1. Seattle-Metro; signpost technology for 1,100 vehicles

State: Wisconsin

1. Milwaukee-MCTS; GPS technology for 440 vehicles operational in 1994

2. Sheboygan-ST; signpost technology for 100 vehicles

Territory: Nova Scotia

1. Halifax; signpost technology for 160 vehicles operational in 1987

Territory: Ontario

1. Hamilton; dead reckoning technology for 280 vehicles

2. Ottawa; radio frequency tag technology for 800 vehicles operational in 1994

Territory: Quebec

1. Toronto; signpost technology for 1,600 vehicles operational in 1989

References:

1. Intelligent Transportation Society of America Research Survey, Winter/Spring 1995.
2. APTS State of the Art Report--1994 Update, U.S. Department of Transportation, Federal Transit Administration, January, 1994.

February 17, 1995

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International ITS Information Clearinghouse
Fact Sheet #1
Route Guidance in the U.S.

Company: Oldsmobile Division of the General Motors Corporation
Product Name: Guidestar, GPS-based
Cost: $1,995 MSRP
Description: This in-vehicle navigation system is currently available as an option on Oldsmobile Eighty-Eight models in California, Michigan, Indiana, Florida, Georgia, and Illinois. The system will be available in Washington DC, Maryland, Virginia, New York, New Jersey and Rhode Island in early 1995. The system will be available nationally in the first quarter of 1996 (1).

Company: Sony
Product Name: NVX-F160, GPS-based
Cost: $2,995 MSRP
Description: This in-vehicle navigation system is currently available at major car stereo dealers throughout California and Nevada (2).

Company: Avis Rental
Product Name: Guidestar, GPS-based
Cost: Not Available
Description: Avis is making vehicle navigation available through its rental fleet. The system was developed by Zexel and manufactured by Rockwell. The system is currently available in the San Francisco Bay area, San Jose and South Florida. Final testing is now being conducted in the following areas: parts of Metropolitan NY, Greater Detroit, areas of Illinois including Chicago and areas of Indiana including Indianapolis (3).

Company: Delco Electronics
Product Name: Telepath 100, GPS-based
Cost: $800 (estimated)
Description: This in-vehicle navigation system provides distance and direction to selected destinations. Telepath 100's lower cost is attributable to its being fully integrated into a car stereo. The system will be introduced in 1995 and is currently being field tested by Avis rental cars in Indianapolis (4).

Company: Hertz
Product Name: NeverLost, GPS-based
Cost: Not Available
Description: Hertz is making vehicle navigation available through its rental fleet. The system will be available in December 1994 in California and Florida and in Atlanta, Boston, Chicago, Detroit, New York, and Washington DC. (13).

Company: Pioneer
Product Name: GPS-X77, GPS-based
Cost: $2,700
Description: Pioneer will begin to sell it's in-vehicle navigation system in the U.S. in January 1995. Pioneer expects to sell 3,000 units in 1995 (5).

Company: Amerigon Inc.
Product Name: AudioNav, non GPS-based
Cost: under $500 (estimated)
Description: This in-vehicle navigation system features interactive voice system technology. AudioNav was marketed by **Alpine, Clarion, Fujitsu Ten's Eclipse and Kenwood** at the Consumer Electronics Show in Las Vegas, January 1995 (6).

Company: Rockwell
Product Name: PathMaster, GPS-based
Cost: Not Available
Description: In the near future Rockwell plans to sell a vehicle navigation system called PathMaster which will be one of the most advanced route guidance systems on the market. The system will be available through the automotive aftermarket (7).

Company: Mercedes Benz
Product Name: APS (Auto-Pilot System), GPS-based
Cost: Not Available
Description: This in-vehicle navigation system will be available on some 1996 models. APS uses computer technology developed with Bosch and Blaupunkt. The system guides the driver to destinations with a dash-mounted display and synthesized voice commands (8).

Company: Siemens
Product Name: Ali-Scout, non GPS-based
Cost: Not Available
Description: Ali-Scout is a beacon-based dynamic route guidance system being tested as part of FAST-TRAC, an operational field test in Oakland County, MI (9).

Company: Motorola
Product Name: Not Available, GPS-based
Cost: Not Available
Description: Motorola is providing the dynamic route guidance system as part of the ADVANCE operational field test in the Chicago area (10).

Company: Clarion
Product Name: NAX-500, GPS-based
Cost: $1,500
Description: Clarion's in-vehicle navigation system uses dead-reckoning and speed sensors that tie into the car's engine management system. Clarion hopes to market the system by the end of 1995 (11).

Company: Itochu International
Product Name: Not Available, GPS-based
Cost: Not Available
Description: This in-vehicle navigation system was showcased at the Winter Consumer Electronics Show. The system uses Etak software and will be available at the end of 1995 (12).

References:

1. Oldsmobile news release, 11/21/94, atis.017*
2. Etak news release, 1/13/95, atis.029
3. Avis news release, 11/10/94 and 9/13/94, atis.014 and atis.015
4. Delco Electronics news release, 1/5/95, atis.025; Avis news release, 11/10/94, atis.014; Automotive News,10/24/94, gr.013; USA Today, 1/23/95, atis.045
5. Nikkei (Japanese Newspaper) Kentaro Sakamoto; "Twice," 1/23/95, atis.044
6. Autoweek, 12/20/93, atis.039; Amerigon news release, 1/6/95, atis.024
7. Rockwell news release, 10/18/94, atis.019; Automotive News, 10/24/94, gr.013
8. Autoweek, 10/3/94, atis.033
9. Siemens, atis.038
10. Advance project description, atis.009; Navtech news release, 9/6/94, atis.016
11. "Mobile Navigators are Getting Vocal," Twice, 1/23/95, atis.044
12. "Mobile Navigators are Getting Vocal," Twice, 1/23/95, atis.044
13. Hertz news release, 10/5/94, atis.051

(* catalog numbers from the National ITS Program Database)

February 15, 1995

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Delco Lowers Price On Bus Safety System

Financially strapped school districts looking to improve child safety on their buses will find Delco Electronic's FOREWARN System significantly cheaper thanks to a $700 price reduction announced by the company.

FOREWARN, first introduced by Delco in 1993, is designed to detect motion in specific danger areas around school buses. It uses beamed and reflected microwave radar to keep track of children getting on or off buses when they are in the driver's blind spots.

Delco announced the dramatic price reduction of its Object Detection System citing improved design and manufacturing production processes and costs as the reason it is now able to offer the lower price. The system is now available at the new price of $1,195 through school bus builders and distributors and can also be bought for after-market installation.

Ford, Motorola Roll Out Mayday System

Ford and Motorola have teamed up to make available the first American designed and manufactured emergency messaging system to be installed as original equipment on U.S.-built automobiles. Executives from the two companies jointly announced plans in April to offer what they call the Remote Emergency Satellite Cellular Unit (RESCU) on the Lincoln Continental beginning next year.

RESCU combines cellular telephone and Global Positioning Satellite (GPS) technology and is designed to automatically transmit the vehicle's location to a response center when the emergency button is pushed. That information is then relayed to the nearest 911 system or Lincoln's Commitment Roadside Assistance Program.

Based on Motorola's OEM U.S. AMPS cellular telephone, the system can also be used for routine telephone calls, according to Robert Denaro, the company's director of Position and Navigation Systems Business.

Trimble Gets Nod From Japan's Xanavi For GPS

Executives at Trimble Navigation, Ltd. significantly increased their company's share of the international ITS market recently by agreeing to link its Global Positioning (GPS) technology with Japan's Xanavi Informatics Corporation's new car navigation system.

Trimble and Xanavi jointly announced the new agreement in late April, saying it clears the way for them to market what they call, "the most precise in-vehicle navigation system available today."

Xanavi, a joint venture between the Hitachi and Nissan Motor Companies, will add the navigation system to the suite of in-car multi-media products now available in autos built by the two companies, according to Kazutoshi Hagiwara, president and CEO of the company.

Florida Utility Adopts ITS Technology To New Use

Florida gas company officials gave high marks to AirTouch's Teletrac data messaging system recently, saying the system helps utility workers to more rapidly and cost effectively collect and analyze critical data.

According to state officials, the gas company uses Teletrac to augment its regular radio communications system. "It is an important new tool that helps us document our response to every reported gas leak as required by State Public Utilities Regulations," said Jim Atkins, assistant division operations manager at the Florida Public Utilities Commission.

"Our drivers also use Teletrac to send pre-formatted messages to dispatchers giving site arrival and departure times and out of service and couldn't get in (CGI) notifications in order to keep the radio net open for more detailed communications," he says.

Teletrac was designed by AirTouch as a fleet management system and is in use by more than 1,100 U.S. businesses and government agencies.

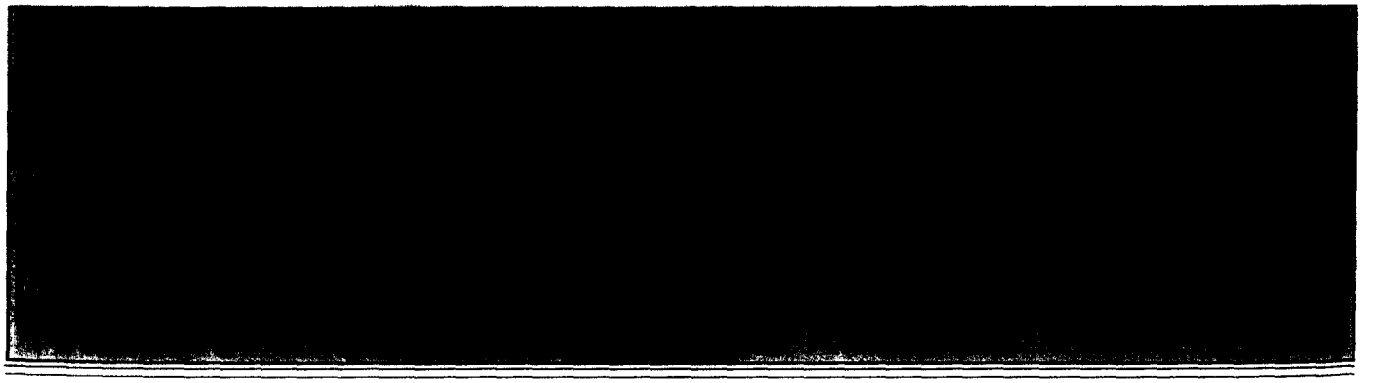
SAIC Subsidiary Acquires TST International

Syntonic Technology Inc., a subsidiary of Science Application International Corp. (SAIC), has extended its global reach into the Pacific Rim with the acquisition of a Brisbane, Australia-based automated toll collection systems manufacturer.

SAIC's Syntonic acquired TST International and its proprietary line of toll collection equipment that includes automatic coin and note machines, lane gates and status indicators, vehicle classification systems, and toll plaza computer hardware in April, according to a company spokesman.

With the acquisition, Syntonic also picks up the Australian company's growing list of domestic and international customers that includes several U.S. state turnpike and toll road authorities and transportation authorities in Indonesia and Hong Kong.

While terms of the acquisition were not released, Syntonic President Russell S. Lewis did say it would definitely accelerate the growth of the company and would also provide an opportunity to introduce its existing ITS product line into that rapidly growing market area as well.



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June 22, 1995

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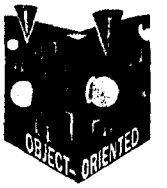


Adarand Decision Jeopardizes Set-Asides

■ 8(a) companies and small disadvantaged businesses face a difficult future as the courts, Congress, the White House and the states debate whether to scuttle the controversial $10.5 billion programs

By Joyce Endoso and Neil Munro
Staff Writers

The Supreme Court Adarand decision has exposed small companies owned by women and minorities to legal and political challenges that might upend the $10.5 billion contract set-aside programs.

But industry and government officials say the Adarand decision has had no immediate impact on government infotech contracting. "It's business as usual," until the government rewrites the affirmative action policy, said D.J. Caulfield, spokesman for the Small Business Administration, which manages the 8(a) set-aside program.

In 1994, the affirmative action programs provided more than $1 billion to infotech companies, many of which are based in the Washington region. This total includes funds from the 8(a) program, which awarded $4.4 billion in mostly sole-source contracts to a pool of 5,400 companies and the Small Disadvantaged Business program, which awarded $6.1 billion in competitive contracts.

The long-term future of the various programs depends on whether the infotech industry can survive the "strict scrutiny" test laid down in the Adarand decision, which reviewed the government's award of a 10 percent contract bonus to companies that hire minority sub-

See AFFIRMATIVE ACTION, Page 40

Envirotech Firms Can't Sit on Green Laurels

■ Companies have to show they can save more than just the planet – they must save money, too

By Liz Skinner
Staff Writer

Regardless of how well a new environmental technology cleans up contamination, it'll never make it to the marketplace unless the innovation saves money. This is among the hardest lessons once-hot environmental start-ups and their disappointed investors must learn.

"Envirotech companies won't survive without showing they save users money," said Marshall Heinberg, managing director for investment banking services at

See GREEN TECHNOLOGY, Page 40

Pentagon Developing Cyberspace Weapons

■ The Pentagon's secret armory of cyberspace weapons could be used to deter foreign attacks, says a Pentagon official

By Neil Munro
Staff Writer

The Pentagon is developing an armory of classified cyberspace weapons that could offer a more powerful deterrent against foreign attacks than conventional weapons such as bombers, say Pentagon officials.

The power of the cyberspace deterrent would lie "somewhere between nuclear and conventional weapons," said Vice Adm. Arthur Cebrowski, director of command, control and communications for the Pentagon-based Joint Staff.

Officials declined to describe the cyberspace weapons under development, citing secrecy rules. "We have an offensive capability, but we can't discuss it.... [However], you'd feel good if you knew about it," said Emmett Paige, the Pentagon's assistant secretary of

See INFORMATION WARFARE, Page 41

Telecom Companies Become Integrators

■ The terms become interchangeable as telcos seek ways to expand their business base

By Stan Fosco Kniskey
Staff Writer

Telecommunications companies are increasingly expanding into the integrator market, signaling a potential tectonic shift in the multi-billion dollar market for complex systems integration and infotech consulting.

More and more customers are looking for a combined solution that meets their information technology and telecommunications needs, said John Korin, vice president of strategic development with PRC Inc. Who that trend ultimately benefits is anyone's guess, but one thing is sure: Telecommunications services providers are eager for a piece of this business, and many believe they have every bit as much skill to do complex systems integration as more traditional integrators such as EDS, CSC or PRC.

"Data communications is growing by leaps and bounds... and telcos do not want to get left behind," said Scott Smith, a Pacific Bell spokesperson. To remain competitive, telecommunications companies must look at providing more than just transport services, Smith said. And with the continuing convergence of telecommunications and computing — of which the Internet is perhaps the most prominent example — the definition of just what an integrator is seems headed for change.

Additional services telecommunications companies are considering providing include equipment, or monitoring and troubleshooting networks — services that in many cases build on existing skills and resources.

For example, in September 1994, MCI set up a division to capitalize on services that it had been performing internally and for its largest customers, said Dave

See TELECOM INTEGRATION, Page 41

High-Tech Intruders

■ As microprocessors and other items approach the value of gold, the FBI, customs and AEA combat an alarming increase in violent computer-related theft

By Dale F. Mead
West Coast Correspondent

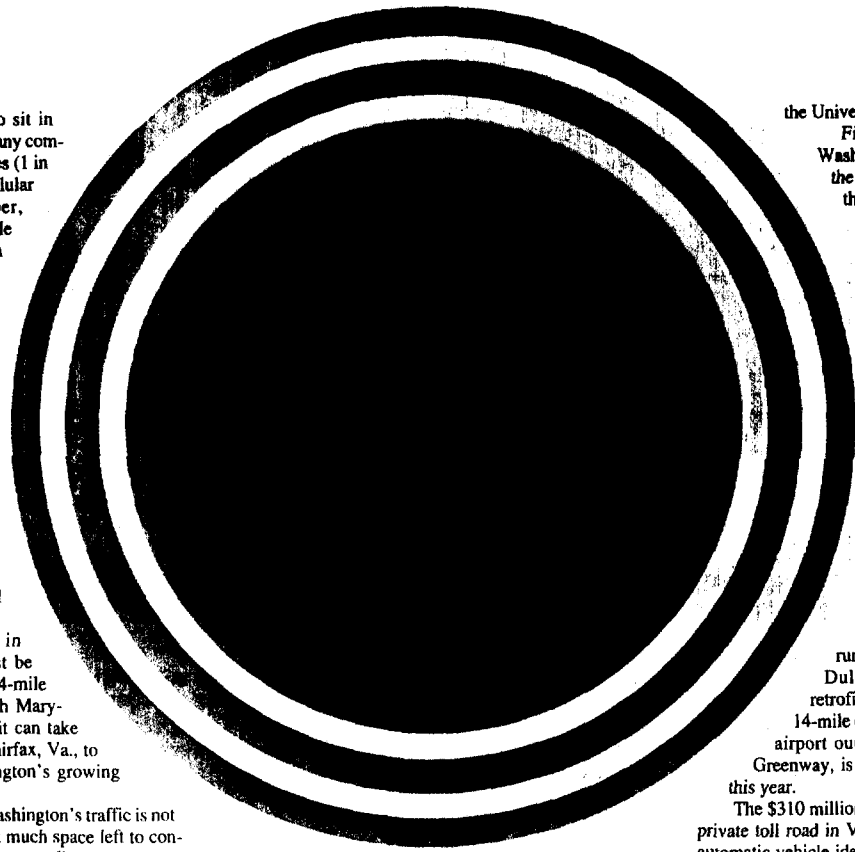
When Iftikhar Ahmed, CEO of IST Inc. in Santa Clara, Calif., returned from a meeting around closing time May 23, he suddenly found himself looking at gun barrels. Two thieves were holding his two employees at gunpoint. The robbers tied the three with computer cord and stole more than $250,000 in modems, processors and memory chips.

While debate in the Capitol over international high-tech piracy focuses on the bottom line, the facilities where computer components are built or stocked

See CHIPS AND ROBBERS, Page 41

Targeting Traffic

Transportation agencies around the metropolitan region are turning to smart electronics to cut congestion



Washingtonians expect to sit in traffic. That's why so many commuters talk on car phones (1 in 10 cars in the metro area carry a cellular telephone), skim the newspaper, munch on bagels, or do all three while driving around the city. But though congestion on local highways may be invigorating cell-phone and bagel sales, experts say Washington's traffic snarls could stall the region's economic growth.

"Technology services are increasingly becoming the economic base for the region and we have to make sure this industry grows and continues to do well," said Roger Stough, a George Mason University professor who tracks the region's economy. Better transportation is essential to ensuring the health of the technology-based economy and all Washington businesses, he said.

Executives and sales people in Northern Virginia companies must be able to travel quickly around the 64-mile Capital Beltway to do business with Maryland and District firms. Currently, it can take more than an hour to travel from Fairfax, Va., to Silver Spring, Md., two of Washington's growing business centers.

But the solution to speeding up Washington's traffic is not to build more roads; first, there isn't much space left to construct them and second, it costs an extraordinary amount to build a new highway. Instead of additional roads, federal and local transportation officials say the answer is to make existing transit systems smarter. The idea is to take advanced electronics and information technologies, many of which were designed for the military, and apply them to cars and highways, resulting in an intelligent transportation system, known as ITS.

"When construction costs regularly exceed $40 million a mile, and indeed, the new Century Freeway in Los Angeles cost $127 million a mile, ITS — in its many forms — offers a cost-effective way to safely handle growing traffic volumes and to keep America moving," said U.S. Transportation Secretary Federico Pena at a recent Washington event.

Smarter highways and cars have been discussed for years, but now there are actually dozens of tests and demonstration studies putting transportation technologies to work around the United States. The Washington region has become a hotbed for intelligent transportation activities, and that means good things for Washington's business growth, Stough said.

By Liz Skinner
Staff Writer

ITS EMBRACES WASHINGTON

Washington is a natural match for smart transit projects because many of the companies implementing and developing the technologies have a major presence here, such as SAIC, Parsons Brinkerhoff, Boeing Information Services, Rockwell International and BDM International.

In addition to a wealth of companies, the Washington region has an extraordinarily high number of university resources, including GMU's ITS policy research programs, George Washington University, which houses the National Crash Analysis Center, Virginia Polytechnic Institute, which operates a federally funded Center of Excellence in ITS research and the Virginia Transportation Research Council at the University of Virginia.

Finally, the most obvious reason that Washington and ITS are a good fit is because the region is second only to Los Angeles as the most congested area in the country. Washington's leaders want to improve its transportation problems so that it doesn't lose business opportunities.

"ITS can help the region reduce congestion and increase mobility, which will make it easier for companies to do business face to face," Stough said.

FASTER TOLL COLLECTION IN NORTHERN VIRGINIA

One way to speed up traffic is to automate collection of tolls. By next year, the Dulles corridor will be one of the first highways in the nation where cars will buzz through toll plazas that electronically subtract a toll from a tag on the car's dashboard.

The current Dulles toll road, which runs from the Beltway through Fairfax to Dulles International Airport, will be retrofitted to collect tolls electronically. The 14-mile extension of the Dulles toll road past the airport out to Leesburg, Va., called the Dulles Greenway, is supposed to be finished by the end of this year.

The $310 million construction project, which is the first private toll road in Virginia since 1816, will be built to use automatic vehicle identification systems and other advanced technologies that provide electronic toll collection. The two systems will be compatible, so that drivers traveling from the Beltway to Leesburg can have their tolls subtracted from the same tag in their car.

The addition of electronic toll collection is expected to trigger increased economic growth along the Dulles corridor. According to a report by the GMU Institute of Public Policy, installation of an electronic toll system improves the profitability of toll roads by:

- Handling more cars in a short amount of time
- Luring cars from other congested routes
- Reducing the number of violations to current toll collection systems
- Lowering operation and maintenance costs
- Improving management and auditing

With automated toll collection, the trip from Leesburg,

See TRAFFIC, page 19

Traffic

continued from page 16

Va., to Washington is expected to be cut from more than one hour to about 32 minutes. In addition, land owners along the route will benefit from increased land values due to better accessibility provided by FAST-TOLL, the name of the electronic tolling system. The entire region, in fact, is expected to gain from the Dulles project.

"The economy of the whole metropolitan region will benefit from FAST-TOLL, with increased employment, increased gross regional product, increased income, and increased regional competitiveness," the GMU report concludes.

There has also been preliminary discussion of bringing electronic toll collection to the Woodrow Wilson Bridge where traffic is exceptionally slow. The goal is to increase the 23-miles-per-hour speed that Beltway commuters average today when crossing the bridge.

MONTGOMERY COUNTY INTEGRATES TRAFFIC AND TRANSIT INFORMATION

Another component of intelligent transportation systems focuses on improving the amount and accuracy of travel information. Maryland's Montgomery County is creating what is reportedly the first fully integrated transit and traffic management system in the nation — and it's just in time. Traffic in Montgomery County is expected to double by the year 2010.

The new transportation center, being built in the executive office building in Rockville, Md., is a joint project of the United States, Maryland and Montgomery County departments of transportation. The program uses the Pentagon's Global Positioning System of satellites, the same satellites that the U.S. military used in Desert Storm, to track its buses as they move through the county.

Montgomery County will combine this information with its traffic signal control system to help keep buses on schedule. The signal system will be able to provide priority treatment to buses by keeping a light green for an extra few seconds when needed. "Our prime interest is to make things flow easier, so that the alternatives to automobiles are more attractive," said Marc Atz of the Montgomery County Department of Transportation.

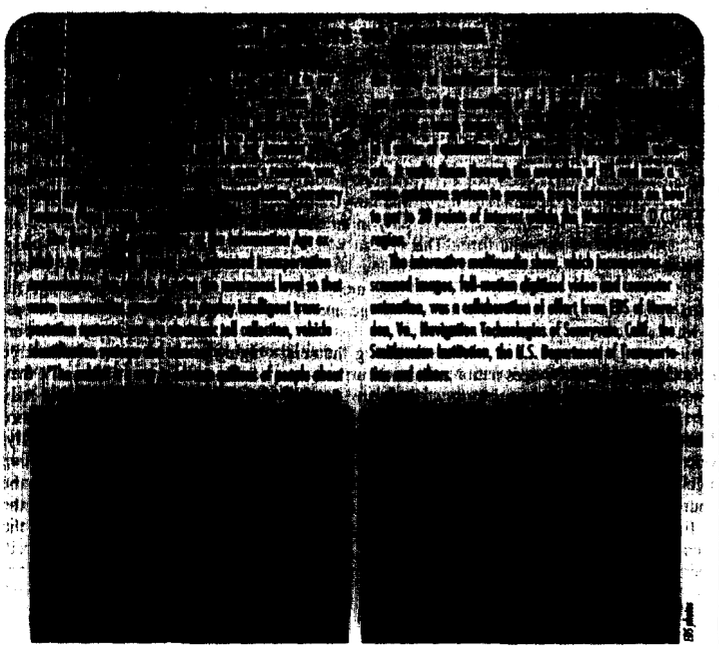
Currently, about 10 to 15 percent of trips in Montgomery County use buses and other methods of public transportation. Officials think they can increase that amount to 20 percent with this new system. "Even if we only improve a couple percent, it will have a significant impact on our traffic problems," Atz said.

Within a year, Montgomery County expects to have all 220 of its buses fitted with positioning technologies, and in the long term, the county will provide real time information for commuters regarding the status of bus schedules, as well as data on the traffic situation overall. This information might be provided by kiosks at bus stops.

There are several other on-going intelligent transportation projects in the capital region, including one being tested by the Washington Metropolitan Area Transit Authority that allows subway riders to pay for their rides with a "smart card." This same electronic tag can be used for local buses and to pay for parking at subway station parking lots.

Another project is taking advantage of the large number of cellular phone users in the Washington region. This initiative is tracking the speed of traffic by measuring how long it takes certain cars to progress along certain roads, including parts of I-270, I-495 and I-66. The system, which was put into place by Engineering Research Associates, Farradyne, Bell Atlantic Mobile and the Maryland State Highway Administration, among others, monitors the location of cars using their cellular phones.

Officials hope that by being one of the first to deploy these smart transportation technologies, Washington will be among the first to feel the relief from congestion. ■



The American History Museum's "Coming and Going," a new intelligent transportation kiosk that's part of the Information Age exhibit.